

**ORANGE COUNTY EMS AGENCY  
PARAMEDIC PHARMACOLOGY HANDBOOK**

MEDICATION: ATROPINE SULFATE	ADULT DOSE	PEDIATRIC DOSE	SIDE EFFECTS	PRECAUTIONS/COMMENTS
<p><b>CLASSIFICATION:</b> Anticholinergic</p> <p><b>MECHANISM OF ACTION:</b></p> <ul style="list-style-type: none"> <li>Blocks the receptors of the para-sympathetic nervous system: <ul style="list-style-type: none"> <li>Increases heart rate by increasing rate of discharge of SA node.</li> <li>Accelerates conduction through AV node.</li> <li>Reverses muscarinic effects of organophosphates and nerve agents.</li> </ul> </li> </ul> <p><b>INDICATIONS:</b></p> <ul style="list-style-type: none"> <li>Bradycardia, first, second or third degree heart block with hypoperfusion.</li> <li>PEA with rate &lt; 60 (adults only).</li> <li>Ventricular asystole (adults only).</li> <li>Antidote for organophosphate poisoning/nerve agent exposure.</li> </ul> <p><b>DOSAGE FORM:</b></p> <ul style="list-style-type: none"> <li>1 mg/10 ml, 10 ml prefill syringe</li> <li>1 mg/ml, 1 ml vial</li> <li>0.4 mg/ml, 20 ml vial</li> <li>2 mg/0.7 ml auto-injector</li> </ul>	<ul style="list-style-type: none"> <li>0.5 mg IVP every 3-5 minutes to a maximum of 0.04 mg/kg.</li> <li>For documented PEA HR &lt; 60 or asystole: 1 mg IVP every 3-5 minutes to a maximum of 0.04 mg/kg.</li> <li>2.0 mg ET once.</li> <li>2-5 mg IM or IVP for organophosphate poisoning.</li> <li>2-6 mg IM/IV, or 1-3 auto-injectors IM depending on severity for nerve agent exposure.</li> </ul>	<ul style="list-style-type: none"> <li>0.02 mg/kg IVP every 3-5 minutes to a maximum of 0.04 mg/kg.</li> <li>0.05 mg/kg IVP or per BH for organophosphate poisoning.</li> <li>0.5-1.0 mg IM or 0.02 mg/kg IVP with a minimum dose of 0.1 mg IVP, or BH order for nerve agent exposure.</li> <li>Minimum dose of 0.1 mg to avoid paradoxical bradycardia.</li> </ul>	<ul style="list-style-type: none"> <li>Tachycardia.</li> <li>Dry mouth.</li> <li>Blurred vision.</li> <li>Dilated pupils.</li> </ul>	<ul style="list-style-type: none"> <li>May increase myocardial oxygen demands precipitating angina or extending an area of infarct. Use with caution in acute MI.</li> <li>May occasionally cause ventricular tachycardia or fibrillation.</li> <li>Increase in heart rate may be minimal in elderly people and children.</li> <li>May not be useful for patients with wide complex third degree AVB and second degree Mobitz II AVB.</li> <li>Not indicated for bradycardia related to head injuries.</li> <li>Not effective in heart transplant patients.</li> </ul>